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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,266	04/15/2004	Wolfgang Beilfuss	Serie 6293	8115
7590		02/09/2007	EXAMINER	
Linda K. Russell			MCKANE, ELIZABETH L	
Air Liquide				
Suite 1800			ART UNIT	
2700 Post Oak Blvd.			PAPER NUMBER	
Houston, TX 77056			1744	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE		DELIVERY MODE
3 MONTHS		02/09/2007		PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/825,266

Applicant(s)

BEILFUSS ET AL.

Examiner

Leigh McKane

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-75 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-75 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date 041504,061404.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 55, 60, 64, 65, 67, and 68 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 55, the range of “from about 94.9% to about 98.9%” is confusing with respect to claim 52, from which claim 55 depends. Claim 52 recites a range of “from about 2 to about 10%”. It is unclear how the range of claim 55 further limits the range in claim 53.

In claim 60, the range of “from about 94.5% to about 99.725%” is confusing with respect to claim 56, from which claim 60 depends. Claim 56 recites an amount of “about 40%”. It is unclear how the range of claim 60 further limits the range in claim 56.

Claims 65 and 64 are drawn to specific 1- or 2-alkylglycerol ethers. However, claim 19, from which they both depend, requires that the alkylglycerol ether be 1-(2-ethylhexyl)glycerol ether. Thus, these claims are vague and indefinite.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for

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patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 19, 20, 23, 25, and 27 are rejected under 35 U.S.C. 102(a) and (e) as being anticipated by Modak et al. (US 2003/0152644).

Modak et al. teaches a method of disinfecting the surface of an article (leather patch) wherein the article is contacted with a composition containing 1-(2-ethylhexyl)glycerol ether. See paragraphs [0018], [0052], and [0056]. The composition may include a further agent such as a phenol (phenoxyethanol) and water. See paragraphs [0021] and Example formulations on page 4.

5. Claims 19-23, 25-27, 42, 44, 46, 48, 57, 58, and 62-66 are rejected under 35 U.S.C. 102(a) and (e) as being anticipated by Saud et al. (US 2004/0001797).

Saud et al. teaches a method of disinfecting a hard surface employing a composition containing 1-(2-ethylhexyl)glycerol ether in an amount of 0.5%. See paragraphs [0034], [0050], Table 1 – Ex.3. The composition contains additional agents such as citric acid (a carboxylic acid) in an amount of 1.5%, sodium hydroxide in an amount of 3%, and water. Additionally, the composition contains a salt, sodium glyceryl sulfonate. The pH is 3.0. See paragraph [0082]. The composition is packaged to be dispensed as a spray (i.e. atomized) ([0054]) or can be wiped on the surface ([0086}). Saud et al. further discloses that the hard surface cleaner is suitable for kitchen and bathroom surfaces (thermostable surfaces). The composition is allowed to contact the surface for “at least 30 seconds” ([paragraph [0061]). The composition is disclosed to be effective against viruses and bacteria. See Abstract.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 21, 22, 24, 26, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Modak et al..

With respect to claims 21 and 22, Modak et al. discloses that the composition may

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additionally contain citric acid. See paragraph [0033]. As this acid is disclosed by Modak et al. to be useful in adjusting the pH of the composition, it would have found obvious use in the composition.

As to claims 24 and 26, Modak et al. evidences that additional antimicrobial agents such as Triclosan may be added to the composition and that the presence of 1-(2-ethylhexyl)glycerol ether potentiates the effect of the additional antimicrobial agents. See paragraphs [0021] and [0044]. As the addition of Triclosan would have improved the overall effectiveness of the composition, it would have been obvious to one of ordinary skill in the art to use in Modak et al..

With respect to claim 42, Modak et al. discloses that the composition is “applied” to the surface. See paragraph [0052]. The Examiner submits that the application of a liquid composition would render obvious any of the steps of wetting, spraying, wiping, and moistening.

10. Claims 24, 28, 43, 45, 47, 51-56, and 59-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saud et al..

With respect to claim 24, Saud et al. evidences that additional antimicrobial agents, such as Triclosan may be added to the formulation. As Saud et al. indicates that attaining regulatory approval may require the addition of additional antimicrobials, it would have been obvious to add Triclosan to the composition. See paragraph [0037].

As to claim 28, Saud et al. teaches that the compositions may be diluted with alcohol, instead of water. It is disclosed by Saud et al. that alcohols may increase the mildness and the immediate and/or residual efficacy, improve the wetting characteristics, operate as a solvent, and modify the aesthetic characteristics of the composition. For these reasons, one would have found it obvious to use alcohol as the solvent of Saud et al..

With respect to claim 43, Saud et al. discloses the importance of complete wetting of the surface with the disinfectant (paragraph [0086]). Given this teaching, the practice of dipping the article in the disinfectant is rendered obvious.

As to claim 45, Saud et al. teaches the disinfection of bathroom and kitchen surfaces. It would have been obvious to one of ordinary skill in the art that these surfaces would have included glass, metal, plastic, and ceramics.

With respect to claim 47, as Saud et al. discloses the disinfection of bathroom and kitchen surfaces, it would have been obvious to employ the method to disinfect a bottle, which are often found in both bathrooms and kitchens.

As to claims 51-56 and 59-61, as concentration is a result effective variable, it is deemed obvious to the skilled practitioner to optimize the concentration of the glycol ether by varying the dilution of the composition. Such is readily determinable through routine experimentation.

11. Claims 29-41, 49, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saud et al. in view of Tu et al. (WO 92/09309).

With respect to claims 29-41, Saud et al. discloses treatment at ambient temperatures. Tu et al. teaches a method of sterilization of hard surfaces using a mixture of a glycidyl ether and an alcohol solvent. Tu et al. further discloses that the “percent kill can usually be increased just by increasing the temperature of the solution and/or extending the sterilization time.” For the treatment of hard surfaces, the temperature is generally maintained from room temperature to about 100 °C. See page 7, lines 22-34. Thus, it would have been obvious to increase and optimize the treatment temperature in Saud et al. to both increase the percent kill and to reduce the treatment time.

As to claims 49 and 50, Saud et al. is silent with respect to a treatment time. Tu et al. discloses that “[t]he optimum sterilization time is related to the quantity of microorganism present and the level of sterility assurance desired. Consequently, the time can be varied according to needs.” See page 8, lines 1-4. In view of the teachings of Tu et al., it would have been obvious to optimize treatment time according to treatment temperature and the quantity of microorganisms present.

12. Claims 67 and 68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langford (US 5,906,802) in view of Waldmann-Laue et al. (US 5,539,001).

Langford teaches a method of sterilizing a medical instrument wherein the instrument is first cleaned with a detergent to remove bioburden therefrom, disinfected with a liquid or gas sterilant, rinsed with sterile water, and then dried. See col.1, lines 40-52; col.2, lines 35-42; col.3, lines 16-19; col.5, lines 25-26. Langford does not disclose use of an alkyl glycerol ether as the sterilant. Waldmann-Laue et al. teaches a method for the disinfection of hard surfaces using a composition containing an aromatic alcohol and a glycerol ether having a C₆₋₂₂ alkoxymethyl group. Since the sterilant of Waldmann-Laue et al. is effective at low-temperatures, it would have been an obvious choice for the sterilization of the thermolabile medical instruments of Langford. With respect to “pre-cleaning” (i.e. rinsing) the instrument with water before the initial step of cleaning, Langford discloses that the method employs several cycles of washing, either with or without a detergent, in order to completely remove the bioburden prior to sterilization. See col.1, lines 47-51.

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13. Claims 69-75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langford and Waldmann-Laue et al. as applied to claim 69 above, and further in view of Tu et al..

With respect to claims 69-74, Langford fails to disclose a treatment temperature. Tu et al. teaches in a method of sterilization that the “percent kill can usually be increased just by increasing the temperature of the solution and/or extending the sterilization time.” For the treatment of hard surfaces, the temperature is generally maintained from room temperature to about 100 °C. See page 7, lines 22-34. Thus, it would have been obvious to optimize the treatment temperature according to the type of instrument being sterilized to both increase the percent kill and to reduce the treatment time.

As to claim 75, Langford fails to teach a treatment time. Tu et al., however, discloses that “[t]he optimum sterilization time is related to the quantity of microorganism present and the level of sterility assurance desired. Consequently, the time can be varied according to needs.” See page 8, lines 1-4. In view of the teachings of Tu et al., it would have been obvious to optimize treatment time according to treatment temperature and the quantity of microorganisms present.

Double Patenting

14. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re*

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Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

15. Claims 19, 20, 23, and 28 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 31-33 of copending Application No. 10/445,715. Although the conflicting claims are not identical, they are not patentably distinct from each other because the subject matter of the copending claims fully encompass that of the instant claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

16. Claims 67-75 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 73-81 of copending Application No. 10/825412. Although the conflicting claims are not identical, they are not patentably distinct from each other. The claims of the instant application and the copending claims differ only in that the copending claims recite “thermal” disinfection. However, as no particular temperature is claimed, the copending claims read on the instant claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

17. The information disclosure statement filed 04/15/04 fails to comply in part with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

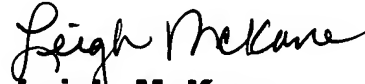
18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leigh McKane whose telephone number is 571-272-1275. The examiner can normally be reached on Monday-Friday (5:30 am-2:00 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on 571-272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR

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system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Leigh McKane
Primary Examiner
Art Unit 1744

elm
5 February 2007